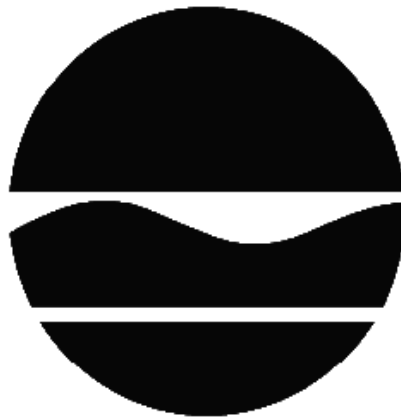


DECISION DOCUMENT

CE-Cedar St MGP New Rochelle
State Superfund Project
New Rochelle, Westchester County
Site No. 360173
November 2020



Prepared by
Division of Environmental Remediation
New York State Department of Environmental Conservation

DECLARATION STATEMENT - DECISION DOCUMENT

CE-Cedar St MGP New Rochelle
State Superfund Project
New Rochelle, Westchester County
Site No. 360173
November 2020

Statement of Purpose and Basis

This document presents the remedy for the CE-Cedar St MGP New Rochelle remediation site. The remedial program was chosen in accordance with the New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 375, and is not inconsistent with the National Oil and Hazardous Substances Pollution Contingency Plan of March 8, 1990 (40CFR300), as amended.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the CE-Cedar St MGP New Rochelle site and the public's input to the proposed remedy presented by the Department.

Description of Selected Remedy

The elements of the selected remedy are as follows:

1. Remedial Design

A remedial design program will be implemented to provide the details necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows:

- considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- reducing direct and indirect greenhouse gases and other emissions;
- increasing energy efficiency and minimizing use of non-renewable energy;
- conserving and efficiently managing resources and materials;
- reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
- maximizing habitat value and creating habitat when possible;
- fostering green and healthy communities and working landscapes which balance ecological, economic and social goals;
- integrating the remedy with the end use where possible and encouraging green and sustainable re-development; and
- incorporating green remediation principles and techniques to the extent feasible in the

future development at this site, any future on-site buildings will include, at a minimum, a 20-mil vapor barrier/waterproofing membrane on the foundation to improve energy efficiency as an element of construction.

2. Coal Tar Recovery

Installation and operation of coal tar recovery wells to remove potentially mobile coal tar from the subsurface. The number, depth, type and spacing of the recovery wells will be determined during the design phase of the remedy, but will be based on factors including but not limited to: presence of coal tar or areas with data indicating the presence of potentially mobile coal tar; location of former gas holders; and low points within the top of bedrock where coal tar is accumulating or has the potential to accumulate. Coal tar will be collected periodically from each well; however, if wells are determined by the Department to accumulate large quantities of coal tar over extended time periods, they can be converted to automated collection.

3. Cover System

A site cover currently exists in areas not occupied by buildings and will be maintained to allow for restricted residential use of the non-roadway portion of the site. Any site redevelopment on this portion of the site will maintain the existing site cover or install a new cover system which allows for restricted residential use. The site cover may include paved surface parking areas, sidewalks, newly imported soils meeting restricted residential Soil Cleanup Objectives (SCOs) in the top two feet, or soil where the upper two feet of exposed surface soil meets the applicable SCOs for restricted residential use. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6NYCRR Part 375-6.7(d).

4. Institutional Control

Imposition of an institutional control in the form of an environmental easement for the controlled property designated by the non-roadway tax parcel which will:

- require the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8(h)(3);
- allow the use and development of the controlled property, defined by the tax parcel, for restricted residential use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restrict the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and
- require compliance with the Department approved Site Management Plan.

Due to the nature of the remaining real property addressed by the remedy, a portion of Cedar Street outside of the tax parcel (a public roadway with no deed) under which former MGP structures existed, the remedial party is unable to create an institutional control filed in the locality's real property records. In addition, an Environmental Notice is not expected to be readily identified during a search of real property records. Therefore, the Department will rely on the remedial party's on-going obligations pursuant to the Site Management Plan to ensure the effective control of this

portion of the site, including notifications to affected property owners or users (e.g. state, county, municipality, utility owners). The remedial party will periodically evaluate whether an institutional control has become feasible, and report on that evaluation as part of periodic reports to the Department. Upon creation, such control will:

- require the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8(h)(3);
- allow the use of the portion of the property within Cedar Street for restricted residential use, relative to MGP contamination, as defined by Part 375-1.8(g), although land use is subject to local zoning laws.
- prohibit the use of groundwater as a source of potable or process water, without prior approval consistent with the local groundwater use restriction (Chapter 873, Article VII of the Laws of Westchester County); and
- require compliance with the Department approved Site Management Plan.

5. Site Management Plan

A Site Management Plan is required, which includes the following:

- a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

Institutional Controls: Environmental Easement and all local use restrictions discussed in Paragraph 4 above, and

Engineering Controls: The coal tar recovery wells as discussed in paragraph 2 and cover system discussed in Paragraph 3.

This plan includes, but may not be limited to:

- o an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- o a provision for further investigation and remediation should large scale redevelopment occur, if any of the existing structures are demolished, or if the subsurface is otherwise made accessible. The nature and extent of contamination in areas where access was previously limited or unavailable will be immediately and thoroughly investigated pursuant to a plan approved by the Department. Based upon the investigation results and the Department determination of the need for a remedy, a Remedial Action Work Plan (RAWP) will be developed, including removal and/or treatment of any source areas to the extent feasible. Citizen Participation Plan (CPP) activities will continue through this process. Any necessary remediation will be completed prior to, or in association with, redevelopment. This includes the areas of on-site buildings and parking lot areas, as well as the location of former MGP structures and impacts currently beneath Cedar Street.
- o a provision for evaluation of the potential for soil vapor intrusion of MGP related contaminants for any new buildings on the site and for the existing detached on-site building should it become occupied in the future, including provision for implementing actions recommended to address exposures related to soil vapor intrusion. Note that there are potential soil vapor intrusion concerns at the site which are not related to former MGP operations, and therefore

not the responsibility of Consolidated Edison, which should be evaluated and delineated if the site is redeveloped in the future;

- o a provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Paragraph 3 above will be placed in any areas where the upper two feet of exposed surface soil exceed the applicable soil cleanup objectives (SCOs);
- o provisions for the management and inspection of the identified engineering controls;
- o maintaining site access controls and Department notification; and
- o the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

b. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:

- o monitoring and recovery of coal tar from the recovery wells and monitoring of groundwater quality to assess the performance and effectiveness of the remedy, with a contingency to address contamination should the rate of recovery be unsatisfactory to the Department; and
- o a schedule of monitoring and frequency of submittals to the Department; and
- o monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

Declaration

The remedy conforms with promulgated standards and criteria that are directly applicable, or that are relevant and appropriate and takes into consideration Department guidance, as appropriate. The remedy is protective of public health and the environment.

11-9-2020

Date



Janet Brown, Director
Remedial Bureau C

DECISION DOCUMENT

CE-Cedar St MGP New Rochelle
New Rochelle, Westchester County
Site No. 360173
November 2020

SECTION 1: SUMMARY AND PURPOSE

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), has selected a remedy for the above referenced site. The disposal of contaminants at the site has resulted in threats to public health and the environment that would be addressed by the remedy. The disposal or release of contaminants at this site, as more fully described in this document, has contaminated various environmental media. Contaminants include hazardous waste and/or petroleum.

Department has issued this document in accordance with the requirements of New York State Environmental Conservation Law and 6 NYCRR Part 375. This document is a summary of the information that can be found in the site-related reports and documents.

SECTION 2: CITIZEN PARTICIPATION

The Department seeks input from the community on all remedies. A public comment period was held, during which the public was encouraged to submit comment on the proposed remedy. All comments on the remedy received during the comment period were considered by the Department in selecting a remedy for the site. Site-related reports and documents were made available for review by the public at the following document repositories:

New Rochelle Public Library
1 Library Plaza
New Rochelle, NY 10801
914 632-7878

DECInfo Locator - Web Application/On-line Repository
<https://www.dec.ny.gov/data/DecDocs/360173/>

Please note that in-person repositories may have limited hours or be temporarily unavailable due to COVID-19 precautions.

Receive Site Citizen Participation Information By Email

Please note that the Department's Division of Environmental Remediation (DER) is "going

paperless" relative to citizen participation information. The ultimate goal is to distribute citizen participation information about contaminated sites electronically by way of county email listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program, Manufactured Gas Plant Program and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at <http://www.dec.ny.gov/chemical/61092.html>

SECTION 3: SITE DESCRIPTION AND HISTORY

Location: The former Con Edison Cedar Street manufactured gas plant (MGP) site is located at 47 Cedar Street in an urban area and occupies city tax block 247, Lot 15 in New Rochelle, Westchester County, in addition to an adjacent area within Cedar Street to the west. An office building sits across Cedar Street to the west of the site. The site is bordered to the north by Spring Street, to the south by Radisson Plaza, and to the east by River Street.

Site Features: The site is currently occupied by a portion of Cedar Street and an active car dealership which includes a three-story, 24,000 square foot building comprised of a show room, office space, and an attached one-story automotive service area situated slightly below grade. East of the service center on the site is a smaller, currently unoccupied, detached building associated with the dealership. A paved parking lot with perimeter landscaped areas and sidewalks and a public roadway cover the balance of the site.

Current Zoning and Land Use: The site is zoned DO-4 and allowable uses consist of mixed use including commercial and residential uses, retail, offices, and entertainment. The areas around the site are zoned commercial, public utility, and two-family residential. Interstate Highway I-95 is less than 0.25 mile north of the site. South of the site and across Radisson Plaza is a hotel/office building. North of Spring Street is a grocery store. Across Cedar Street to the west is an office building. East of the site is a retail marine electronics shop and service center, and a residential neighborhood is about 300 feet east of the site, across River Street.

Past Use of the Site: The Cedar Street Former MGP operated between circa 1863-1911. When gas production ended, the site was used for gas storage until 1953. The MGP produced gas via both coal carbonization (up to 1888) and carbureted water gas processes (after 1888). Former structures that were present at the site included three gas holders (10,000, 30,000, and 230,000 cubic foot capacities), a coal and coke shed, office space, two purifier houses, a meter house, a coal tender and repair shop, a scrubber and a generator house. The property was purchased in 1953 for use as a trucking company, which also included automobile service and sales. In 1992, the current owner purchased the site and began the dealership operations which continue today.

Site Geology/Hydrogeology: The site is underlain by historic fill material (thicker within the former gas holder foundations), under which are glacial deposits consisting of layers of sands and silt of varying textures and thicknesses sitting atop a highly weathered schist bedrock located between 7 and 25 feet below the ground surface. An area of isolated sand and gravel less than 8 feet thick was observed near the southern gas holder. This coarser material sits atop a thin layer of sand and silt which is directly above the bedrock. Depth to groundwater is between 4.5 and 14.5

feet below the ground surface. In general groundwater appears to flow east-northeast, but flow is influenced by a bedrock ridge which runs north-south across the site. Groundwater appears to pond in the northeastern portion of the site where the bedrock surface rises above the water table and a retaining wall along Spring Street and River Street exists to an unknown depth.

A site location map is attached as Figure 1.

SECTION 4: LAND USE AND PHYSICAL SETTING

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, alternatives (or an alternative) that restrict(s) the use of the tax parcel portion of the site to restricted residential use (which allows for commercial and industrial uses) as described in Part 375-1.8(g) were/was evaluated in addition to an alternative which would allow for unrestricted use of the site. The public roadway portion of the site is restricted to commercial use as described in Part 375-1.8(g).

A comparison of the results of the Remedial Investigation (RI) to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for the site contaminants is available in the RI Report.

SECTION 5: ENFORCEMENT STATUS

Potentially Responsible Parties (PRPs) are those who may be legally liable for contamination at a site. This may include past or present owners and operators, waste generators, and haulers.

The PRPs for the site, documented to date, include:

Consolidated Edison Company of NY, Inc

The Department and Consolidated Edison Co. of New York, Inc. (CE), entered into a Consent Order on July 25, 2018. The Order obligates CE, to implement a full remedial program for MGP-related contamination both on and off the site. Prior to entering into the Consent Order, CE, and the Department signed a Voluntary Cleanup Agreement in August 2002. The Voluntary Cleanup Program ended in 2018.

Non-MGP contamination, for which Consolidated Edison is not responsible, was found in sub-slab soil vapor and indoor air samples and may be present in soil and groundwater at the site. The owner of this site was notified of the soil vapor and indoor air contamination and was advised to take certain actions to address potential soil vapor intrusion.

On-site and off-site contamination unrelated to former MGP activities identified during the environmental investigations will be addressed separately by the Department as noted below. The responsible party, in accordance with the Order on Consent, is not responsible for non-MGP contamination.

The Department will seek to identify any parties (other than the MGP PRP) known or suspected to be responsible for non-MGP-related contamination at or emanating from the site. The Department will bring an enforcement action against the PRPs. If an enforcement action cannot be brought or does not result in the initiation of a remedial program by any PRPs, the Department will evaluate the on- and off-site non-MGP-related contamination for action under the State Superfund. The PRPs are subject to legal actions by the State for recovery of all response costs the State incurs or has incurred.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

A remedial investigation (RI) serves as the mechanism for collecting data to:

- characterize site conditions;
- determine the nature and extent of the contamination; and
- assess risk to human health and the environment.

The RI is intended to identify the nature (or type) of contamination which may be present at a site and the extent of that contamination in the environment on the site or migrating from the site. The RI reports on data gathered to determine if the soil, groundwater, soil vapor, indoor air, surface water or sediments may have been contaminated. Monitoring wells are installed to assess groundwater and soil borings or test pits are installed to sample soil and/or waste(s) identified. If other natural resources are present, such as surface water bodies or wetlands, the water and sediment may be sampled as well. Based on the presence of contaminants in soil and groundwater, soil vapor will also be sampled for the presence of contamination. Data collected in the RI influence the development of remedial alternatives. The RI report is available for review in the site document repository and the results are summarized in section 6.3.

The analytical data collected on this site includes data for:

- groundwater
- soil
- indoor air
- sub-slab vapor

6.1.1: Standards, Criteria, and Guidance (SCGs)

The remedy must conform to promulgated standards and criteria that are directly applicable or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, Criteria and Guidance are hereafter called SCGs.

To determine whether the contaminants identified in various media are present at levels of concern, the data from the RI were compared to media-specific SCGs. The Department has developed SCGs for groundwater, surface water, sediments, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. For a full listing of all SCGs see:

6.1.2: RI Results

The data have identified contaminants of concern. A "contaminant of concern" is a hazardous waste that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified on the property are contaminants of concern. The nature and extent of contamination and environmental media requiring action are summarized below. Additionally, the RI Report contains a full discussion of the data. The contaminant(s) of concern identified at this site is/are:

coal tar	cyanides (soluble cyanide salts)
polycyclic aromatic hydrocarbons (PAHS), total	tetrachloroethene (PCE)
benzene, toluene, ethylbenzene and xylenes (BTEX)	trichloroethene (TCE)

The contaminant(s) of concern exceed the applicable SCGs for:

- groundwater
- soil
- soil vapor
- sub-slab soil vapor
- indoor air

6.2: Interim Remedial Measures

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before issuance of the Decision Document.

There were no IRMs performed at this site during the RI.

6.3: Summary of Environmental Assessment

This section summarizes the assessment of existing and potential future environmental impacts presented by the site. Environmental impacts may include existing and potential future exposure pathways to fish and wildlife receptors, wetlands, groundwater resources, and surface water. The RI report presents a detailed discussion of any existing and potential impacts from the site to fish and wildlife receptors.

Nature and Extent of Contamination: Soil and groundwater samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, and cyanide. Based upon the investigations to date, the primary constituents of concern are benzene, toluene, ethylbenzene, and xylene (BTEX) compounds, and polycyclic aromatic hydrocarbons (PAHs). Inorganic compounds are also observed in exceedance of restricted residential Soil Cleanup Objectives (SCOs) but would not be considered primary constituents of concern for MGP sites

with the exception of cyanide. Since PCBs and pesticides are not associated with MGP operations, they were not required analytes for this site.

Soil: MGP coal tar in the form of non-aqueous phase liquid (NAPL) was observed in soils and at the top of bedrock in only a few places at the site, mostly near the northern gas holder, ranging from 17 to 33 feet below ground surface. BTEX and PAHs exceed soil cleanup objectives (SCOs) deeper than ten feet below ground surface across the site. BTEX contamination in concentrations above SCOs is present within a small area near the northern gas holder, while total PAH contamination above the 500 parts per million (ppm) guideline concentration extends from the northern gas holder to the southern and western gas holders at the site. Benzene was detected in soil at concentrations up to 1,600 ppm, exceeding the restricted residential use SCO of 4.8 ppm; toluene was found as high as 3,000 ppm, exceeding the restricted residential use SCO of 100 ppm; ethylbenzene was found as high as 3,500 ppm, exceeding the restricted residential use SCO of 41 ppm; total xylene was found as high as 3,400 ppm, exceeding the restricted residential use SCO of 100 ppm. Data does not indicate any off-site impacts in soil related to this site. Cyanide was detected in only one location at 46 ppm, exceeding the restricted residential SCO of 27 ppm. The only exposed soils at the site were brought in to build the existing landscaping areas along the sidewalks surrounding the tax parcel long after the MGP ceased operation and were not sampled as they were not related to historic MGP operations.

Groundwater: All primary contaminant (BTEX and PAH) concentrations at levels above groundwater standards, criteria, or guidance values (SCGs) are limited to three locations at the site, to the west and east of the northern gas holder (both in overburden (9-19 feet below ground surface) and bedrock (43 feet below ground surface)), and in the eastern gas holder in overburden (13-14 feet below ground surface). Benzene was found as high as 1,600 parts per billion (ppb), exceeding the SCG of 1 ppb; ethylbenzene as high as 630 ppb, compared to the SCG of 5 ppb; xylene as high as 580 ppb, compared to the SCG of 5 ppb; naphthalene as high as 4,300 ppb, compared to the SCG of 10 ppb; and acenaphthene as high as 460 ppb, compared to the SCG of 20 ppb. Other PAHs had smaller exceedances of SCGs in the same limited well locations on-site. Data do not indicate any off-site impacts related to this site.

Soil Vapor & Indoor Air: No MGP-related contaminants were detected in indoor air or sub-slab soil vapor in the main on-site building. However, tetrachloroethene (PCE) and trichloroethene (TCE) were detected in indoor air of the showroom/office up to 6.7 $\mu\text{g}/\text{cm}^3$ and 2.1 $\mu\text{g}/\text{cm}^3$, and in the indoor air of the service area up to 3.4 $\mu\text{g}/\text{cm}^3$ and 5.6 $\mu\text{g}/\text{cm}^3$, respectively. PCE and TCE were detected in the sub-slab soil vapor in both the showroom/office area up to 360 $\mu\text{g}/\text{cm}^3$ and 13 $\mu\text{g}/\text{cm}^3$ respectively, and in the service area up to 2,800 $\mu\text{g}/\text{cm}^3$ and 19 $\mu\text{g}/\text{cm}^3$, respectively. A review of both the sub-slab vapor and indoor air data in both the showroom/office area and in the service area suggests that soil vapor intrusion is occurring and/or products are present that are affecting the indoor air quality. These contaminants are possibly related to ongoing operations servicing and storing automobiles. Since this contamination is not associated with former MGP operations, actions that include further investigations and/or actions to reduce indoor air related exposures for the main on-site building have been recommended to the current property owner. Soil vapor intrusion investigations were not conducted in the smaller on-site building that is currently un-occupied and only used for storage. The potential for inhalation exposures as a result of SVI will be evaluated should that building use change in the future.

6.4: Summary of Human Exposure Pathways

This human exposure assessment identifies ways in which people may be exposed to site-related contaminants. Chemicals can enter the body through three major pathways (breathing, touching or swallowing). This is referred to as *exposure*.

Access to the site is unrestricted; however, direct contact with contaminated soil or contaminated groundwater is unlikely because the majority of the site is covered with pavement, sidewalks and two buildings. Contaminated groundwater at the site is not used for drinking or other purposes and the site is served by a public water supply that is not affected by this contamination. Volatile organic compounds (VOCs) in contaminated soil or contaminated groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying structures and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. Soil vapor intrusion sampling identified impacts to indoor air quality in the sampled building but these impacts are not related to past MGP operations. Actions are recommended to minimize exposures to the VOCs detected in the indoor air. Sampling indicates that soil vapor intrusion from the MGP is not a concern for off-site buildings.

6.5: Summary of the Remediation Objectives

The objectives for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375. The goal for the remedial program is to restore the site to pre-disposal conditions to the extent feasible. At a minimum, the remedy shall eliminate or mitigate all significant threats to public health and the environment presented by the contamination identified at the site through the proper application of scientific and engineering principles.

The remedial action objectives for this site are:

Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of volatiles, from contaminated groundwater.

RAOs for Environmental Protection

- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- Remove the source of ground or surface water contamination.

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of or exposure from contaminants volatilizing from contaminants in soil.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.

Soil Vapor

RAOs for Public Health Protection

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a site.

SECTION 7: ELEMENTS OF THE SELECTED REMEDY

The alternatives developed for the site and the evaluation of the remedial criteria are presented in the Alternative Analysis. The remedy is selected pursuant to the remedy selection criteria set forth in DER-10, Technical Guidance for Site Investigation and Remediation.

The selected remedy is referred to as the Coal Tar Recovery, Site Cover Maintenance, and Site Management remedy.

The elements of the selected remedy, as shown in Figure 2, are as follows:

1. Remedial Design

A remedial design program will be implemented to provide the details necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and site management of the remedy as per DER-31. The major green remediation components are as follows:

- considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
- reducing direct and indirect greenhouse gases and other emissions;
- increasing energy efficiency and minimizing use of non-renewable energy;
- conserving and efficiently managing resources and materials;
- reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste;
- maximizing habitat value and creating habitat when possible;
- fostering green and healthy communities and working landscapes which balance ecological, economic and social goals;
- integrating the remedy with the end use where possible and encouraging green and sustainable re-development; and
- incorporating green remediation principles and techniques to the extent feasible in the future development at this site, any future on-site buildings will include, at a minimum, a 20-mil vapor barrier/waterproofing membrane on the foundation to improve energy efficiency as an element of construction.

2. Coal Tar Recovery

Installation and operation of coal tar recovery wells to remove potentially mobile coal tar from the subsurface. The number, depth, type and spacing of the recovery wells will be determined during the design phase of the remedy, but will be based on factors including but not limited to: presence of coal tar or areas with data indicating the presence of potentially mobile coal tar; location of former gas holders; and low points within the top of bedrock where coal tar is accumulating or has the potential to accumulate. Coal tar will be collected periodically from each well; however, if wells are determined by the Department to accumulate large quantities of coal tar over extended time periods, they can be converted to automated collection.

3. Cover System

A site cover currently exists in areas not occupied by buildings and will be maintained to allow for restricted residential use of the non-roadway portion of the site. Any site redevelopment on this portion of the site will maintain the existing site cover or install a new cover system which allows for restricted residential use. The site cover may include paved surface parking areas, sidewalks, newly imported soils meeting restricted residential Soil Cleanup Objectives (SCOs) in the top two feet, or soil where the upper two feet of exposed surface soil meets the applicable SCOs for restricted residential use. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6NYCRR Part 375-6.7(d).

4. Institutional Control

Imposition of an institutional control in the form of an environmental easement for the controlled property designated by the non-roadway tax parcel which will:

- require the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8(h)(3);
- allow the use and development of the controlled property, defined by the tax parcel, for restricted residential use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restrict the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and
- require compliance with the Department approved Site Management Plan.

Due to the nature of the remaining real property addressed by the remedy, a portion of Cedar Street outside of the tax parcel (a public roadway with no deed) under which former MGP structures existed, the remedial party is unable to create an institutional control filed in the locality's real property records. In addition, an Environmental Notice is not expected to be readily identified during a search of real property records. Therefore, the Department will rely on the remedial party's on-going obligations pursuant to the Site Management Plan to ensure the effective control of this portion of the site, including notifications to affected property owners or users (e.g. state, county, municipality, utility owners). The remedial party will periodically evaluate whether an institutional control has become feasible, and report on that evaluation as part of periodic reports to the Department. Upon creation, such control will:

- require the remedial party or site owner to complete and submit to the Department a

periodic certification of institutional and engineering controls in accordance with Part 375-1.8(h)(3);

- allow the use of the portion of the property within Cedar Street for restricted residential use, relative to MGP contamination, as defined by Part 375-1.8(g), although land use is subject to local zoning laws.
- prohibit the use of groundwater as a source of potable or process water, without prior approval consistent with the local groundwater use restriction (Chapter 873, Article VII of the Laws of Westchester County); and
- require compliance with the Department approved Site Management Plan.

5. Site Management Plan

A Site Management Plan is required, which includes the following:

- a. an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

Institutional Controls: Environmental Easement and all local use restrictions discussed in Paragraph 4 above, and

Engineering Controls: The coal tar recovery wells as discussed in paragraph 2 and cover system discussed in Paragraph 3.

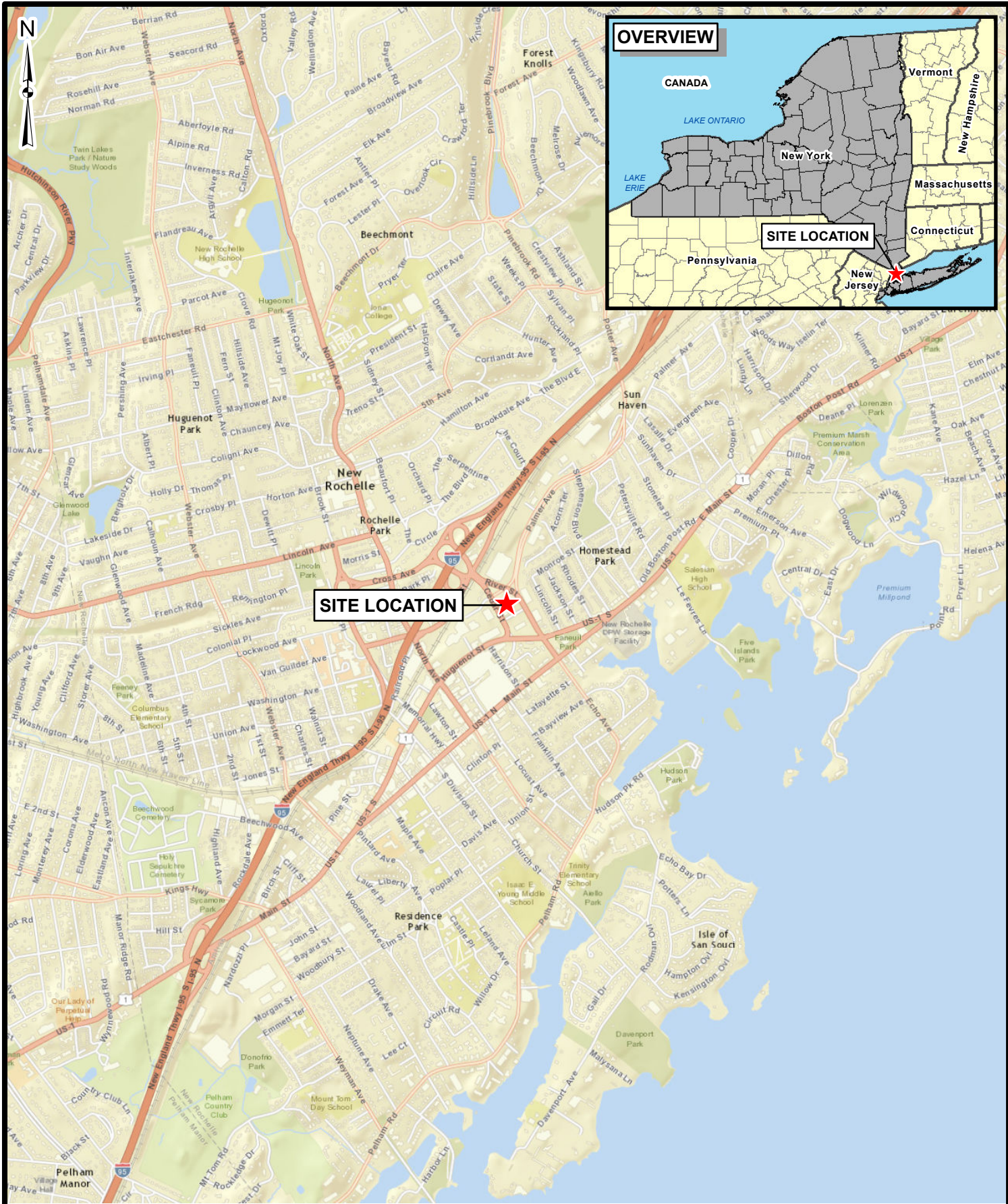
This plan includes, but may not be limited to:

- o an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- o a provision for further investigation and remediation should large scale redevelopment occur, if any of the existing structures are demolished, or if the subsurface is otherwise made accessible. The nature and extent of contamination in areas where access was previously limited or unavailable will be immediately and thoroughly investigated pursuant to a plan approved by the Department. Based upon the investigation results and the Department determination of the need for a remedy, a Remedial Action Work Plan (RAWP) will be developed, including removal and/or treatment of any source areas to the extent feasible. Citizen Participation Plan (CPP) activities will continue through this process. Any necessary remediation will be completed prior to, or in association with, redevelopment. This includes the areas of on-site buildings and parking lot areas, as well as the location of former MGP structures and impacts currently beneath Cedar Street.
- o a provision for evaluation of the potential for soil vapor intrusion of MGP related contaminants for any new buildings on the site and for the existing detached on-site building should it become occupied in the future, including provision for implementing actions recommended to address exposures related to soil vapor intrusion. Note that there are potential soil vapor intrusion concerns at the site which are not related to former MGP operations, and therefore not the responsibility of Consolidated Edison, which should be evaluated and delineated if the site is redeveloped in the future;
- o a provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Paragraph 3 above will be placed in any areas where the upper two feet of exposed surface soil exceed the applicable soil cleanup objectives (SCOs);

- o provisions for the management and inspection of the identified engineering controls;
- o maintaining site access controls and Department notification; and
- o the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

b. a Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:

- o monitoring and recovery of coal tar from the recovery wells and monitoring of groundwater quality to assess the performance and effectiveness of the remedy, with a contingency to address contamination should the rate of recovery be unsatisfactory to the Department; and
- o a schedule of monitoring and frequency of submittals to the Department; and
- o monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.



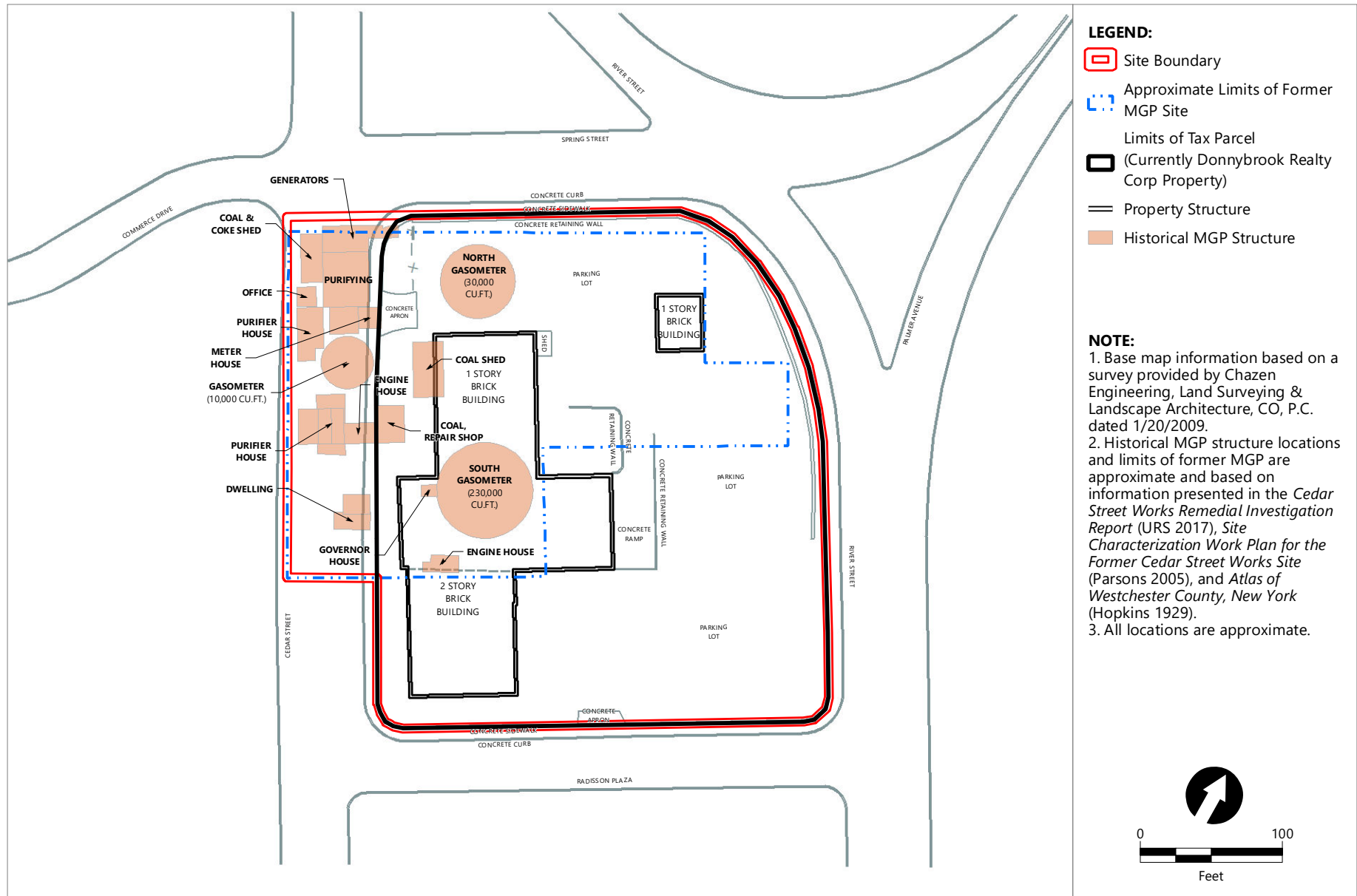
Source: ESRI World Street Map



CONSOLIDATED EDISON CEDAR STREET WORKS SITE
REMEDIAL INVESTIGATION
SITE LOCATION

FIGURE 1-1

J:\Projects\1176944\GIS\MapR101-01 SITE LOCATION.mxd 8/21/2014 MDL



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Figure 1-2
Site Features and Historic Structures

Cedar Street Works Former Manufactured Gas Plant Site - Alternatives Analysis Report
Consolidated Edison Company of New York, Inc.



Legend

Former MGP Structure

Boring Log Observations

Blebs, Globs, Sheen

Staining, Odor

Petroleum Impacts Saturation & Sheens

Hardened Tar

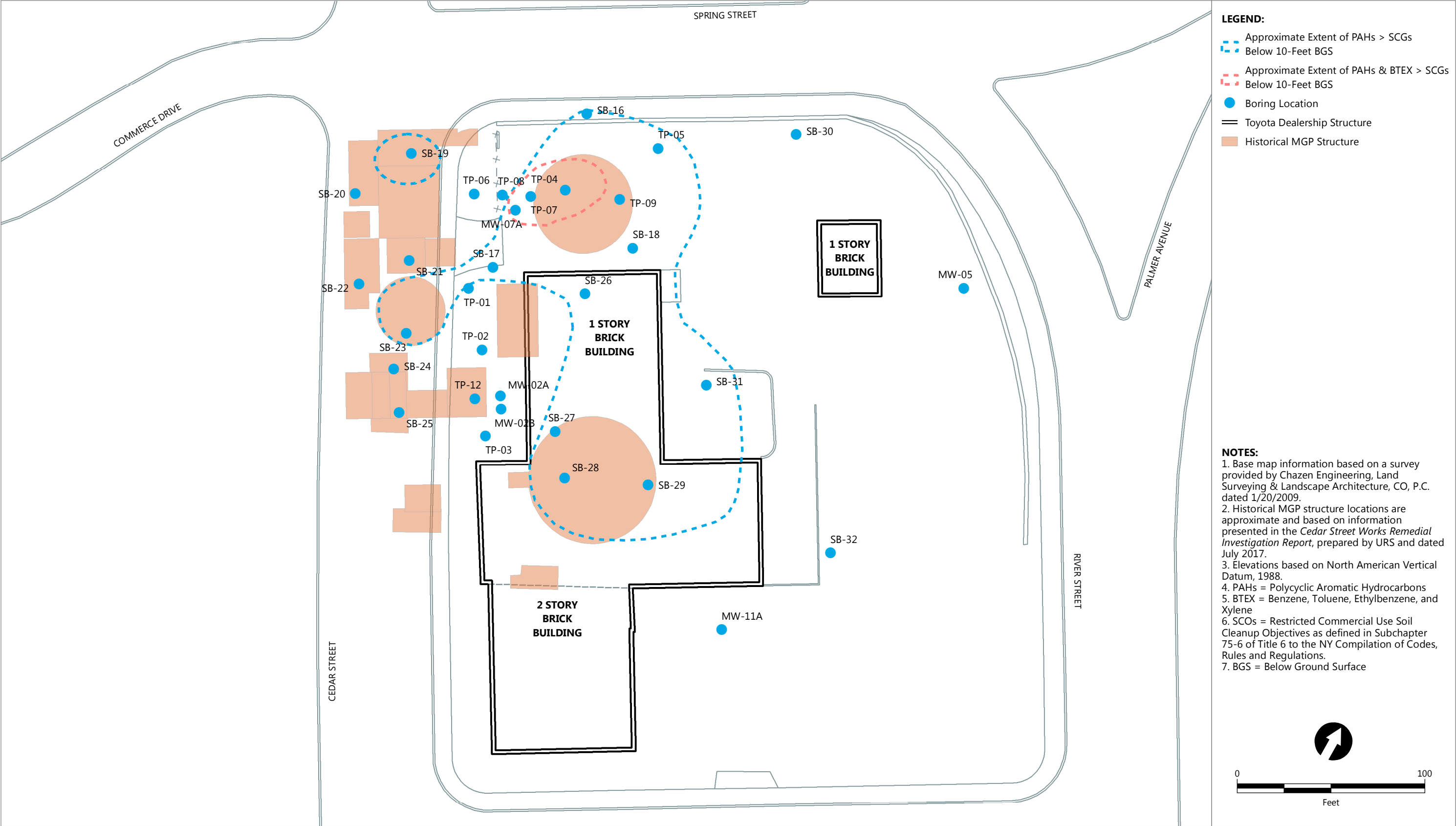
Tar Saturated

No Observed Impacts

Petroleum Impacts Staining & Odors

CONSOLIDATED EDISON
CEDAR STREET WORKS
REMEDIAL INVESTIGATION
QUALITATIVE OBSERVATIONS

FIGURE 4-1



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Figure 1-7
Summary of Extent of Soil Sample Exceedances
Cedar Street Works Former Manufactured Gas Plant Site - Alternatives Analysis Report
Consolidated Edison Company of New York, Inc.

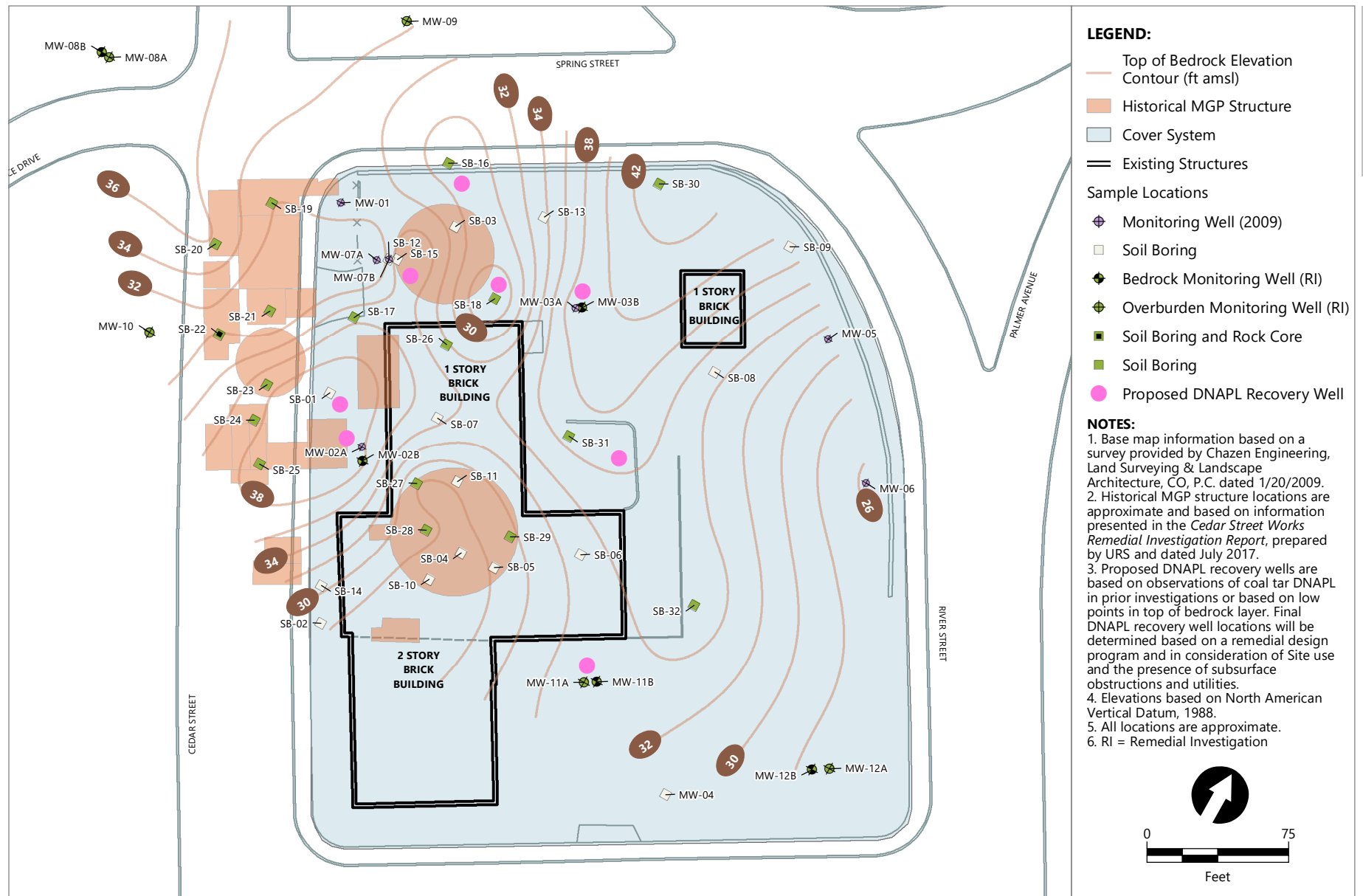


Figure 5-1
Proposed Remedial Alternative 2: DNAPL Recovery, Maintain Existing Surface Covers, Groundwater Monitoring, and Institutional Controls
 Cedar Street Works Former Manufactured Gas Plant Site - Alternatives Analysis Report
 Consolidated Edison Company of New York, Inc.